Amendments to the Drawings

In Figures 2 and 5 Applicants now add the designation "prior art," as shown in red on the attached marked up sheets of these Figures.

Replacement sheets of Figs. 2 and 5 incorporating the "prior art" designation are also attached.

Attachment: Replacement Sheet

                Annotated Marked-Up Drawings

REMARKS

Figures 2 and 5 have been amended by adding a designation "prior art." No new matter is introduced; acceptance is respectfully requested.

The Abstract has been amended in accordance with page 2, section 2 of the instant Office Action.

Claims 40, 43, 44 and 48-53 have been amended to correct obvious errors and to further clarify the scope of the claimed subject matter. New Claim 75 has been added as a parallel system claim to base method Claim 54. No new matter is introduced; acceptance is respectfully requested.

Rejection of Claims 54-74 under 35 U.S.C. § 101

Claims 54-74 have been rejected under 35 U.S.C. § 101. Claims 54-74 have now been amended in response to the claim rejections under 35 U.S.C. § 101. With these amendments, Applicants believe that claims 54-74 are now directed to patentable subject matter, and respectfully requests that the claim rejections under § 101 be withdrawn.

Rejection of Claims 40-44, 46, 49-51, 54-58, 60 and 68-74 under 35 U.S.C. § 102(b)

Claims 40-44, 46, 49-51, 54-58, 60 and 68-74 have been rejected under 35 U.S.C. § 102(b) as being anticipated by the commercial product HP OpenView as documented in the March 1995 text book "Focus on OpenView – A Guide to Hewlett-Packard's Network and Systems Management Platform," by Nathan J. Muller (hereinafter referred to as "HP"). Applicants respectfully disagree with these rejections for the reasons set forth below.

Independent claims 40, 54 and 75 are directed to computer systems and methods of remotely monitoring the execution of computer programs. One embodiment of the invention is described with reference to Fig. 4 in the Application. This description is provided for illustrative purposes only, and the invention is not limited by this description, being defined by the claims. Fig. 4 is a flow chart describing a method of monitoring a "program under test" (PUT). A PUT

is typically a computer program or application that a developer has distributed to a client, and the developer intends to test the program by monitoring its execution at the client.

Referring to Fig. 4, computer code for monitoring program execution is inserted into the source code of a PUT at step 304. The source code is compiled 306 and the compiled program is sent to a client 308. The client executes the program 310 and, accordingly, executes the monitoring instructions 318 when called by the program. Thus the client executes the PUT while collecting data about the execution of the PUT. When the PUT terminates (e.g., encountering an "end program" function or a terminal error), the data collected by the monitoring instruction is sent to the remote server 324. The remote server analyzes this data 326, the result of which may have a number of uses such as fixing bugs in the PUT, tracking execution of the PUT, and optimizing the PUT. Refer to page 6, line 35 – page 9, line 2 of the specification as originally filed.

HP describes an application for managing operations in a distributed computing environment (HP, p. 65). The application includes an "OperationsCenter" (management software) at a management station and a number of "intelligent agents" installed at workstations connected in a network (see HP, Fig. 4-2 on page 68). An agent collects information about "events" occurring at the respective workstation, such as CPU use, changes in hard drive space and users logging in and out of the workstation (see HP, page 65 last paragraph, and page 71, paragraph 6). The agent creates messages about these events, which are intercepted by the management software at the management station (p. 71, paragraph 8). In response to these messages, the management station can monitor and control operations of the workstations, thereby managing the network.

HP does not anticipate the present invention as claimed in amended Claims 40 and 54 and in new Claim 75, at least because it does not teach "computer code that collects data during an execution of a computer program using at least one monitoring instruction, the at least one monitoring instruction being incorporated into the computer program, the collected data regarding the execution." Rather, HP describes management software that enables a central computer to control several networked computers, as well as collect information about hardware

and network processes at the networked computers. The software is not included in a program to be monitored; nor does it collect data on the execution of such a program.

The "intelligent agent" of HP is not "include[ed]" or "incorporated into [a] computer program" as recited in base Claims 40, 54 and 75. On the contrary, the agent is a stand-alone application at each of the managed nodes (HP page 69). HP fails to teach a "monitoring instruction" that is included into a subject program to collect data on the program's execution. The agent monitors "performance values" of the managed node at specified intervals (HP page 69, "Threshold Monitoring"). These values can be collected from logfiles of applications, which are created by the application and not by a monitoring instruction of the agent (HP page 69). Moreover, the values indicate performance of the node, such as "CPU use, disk space, I/O and other system operations," and do not indicate execution (i.e., are not "regarding execution") of the program (HP page 65, last paragraph).

Claims 41-44, 46, 49-51, 55-58, 60 and 68-74 depend from one of base Claims 40 and 54 and thus the foregoing applies. For at least the reasons above, HP fails to teach or suggest the present invention as claimed. Withdrawal of the § 102 rejections of the claims is respectfully requested.

Rejection of Claims 45, 47, 48, 52, 53, 59 and 61-67 under 35 U.S.C. § 103(a)

Claims 45, 47, 48, 52, 53, 59 and 61-67 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over HP in view of Heinen Jr., U.S. Patent No. 4,589,068. Heinen describes a segmented debugger for debugging, from a central terminal, processes running on remote computers that are connected to the central terminal through a network (Heinen, Abstract). The segmented debugger includes debugging software at the central and remote terminals.

Heinen does not disclose collecting data of a program execution using an included monitoring instruction during the execution; nor does it disclose sending such collected data to a remote system. Likewise, HP fails to disclose these claim elements as recited in base Claims 40, 54 and 75, as explained above. Therefore, combining the teachings of HP and Heinen would not arrive at the present invention. Applicants also note that one skilled in relevant art would not be

motivated to combine the teachings of HP and Heinen because the teachings concern distinct goals, being network management and program debugging, respectively.

Furthermore, the teachings of HP and Heinen cannot not be combined in a coherent fashion. The "OperationsCenter" of HP receives information relating to system performance of the managed nodes. This information does not relate to the execution of a program, and therefore cannot be used to debug such a program. Thus, the remote debugging system of Heinen is not applicable to the management operations taught in HP.
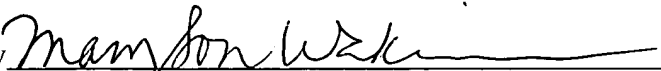
Claims 45, 47, 48, 52, 53, 59 and 61-67 depend from one of base Claims 40 and 54 and thus the foregoing applies. As a result, the § 103 rejection of these claims is believed to be overcome, and Applicants respectfully request that the § 103 rejection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, it is believed that all pending claims (Claims 40-75) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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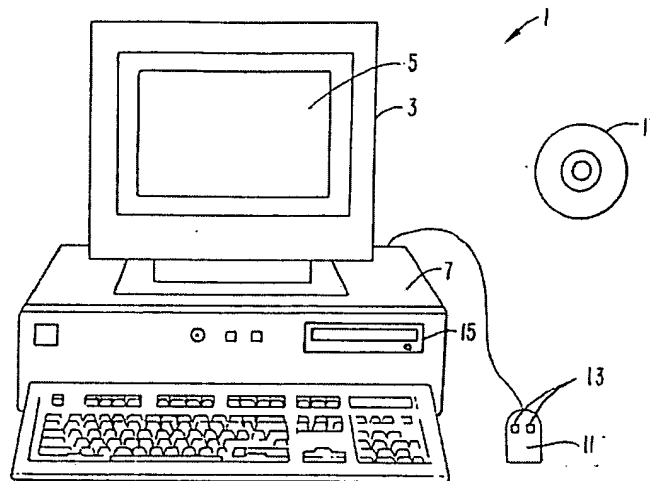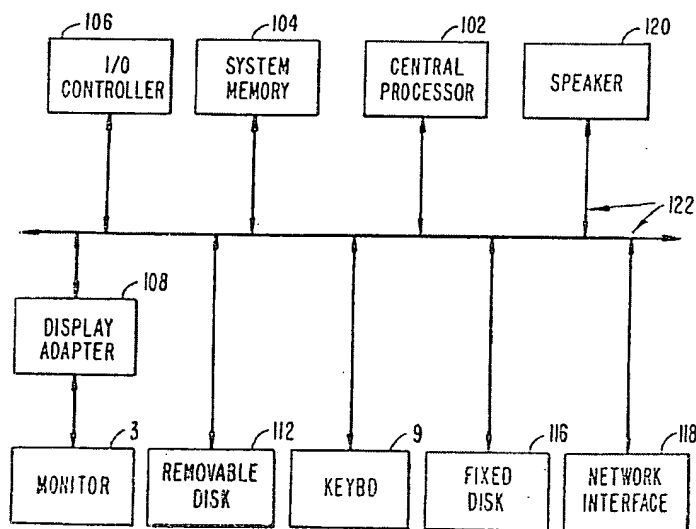
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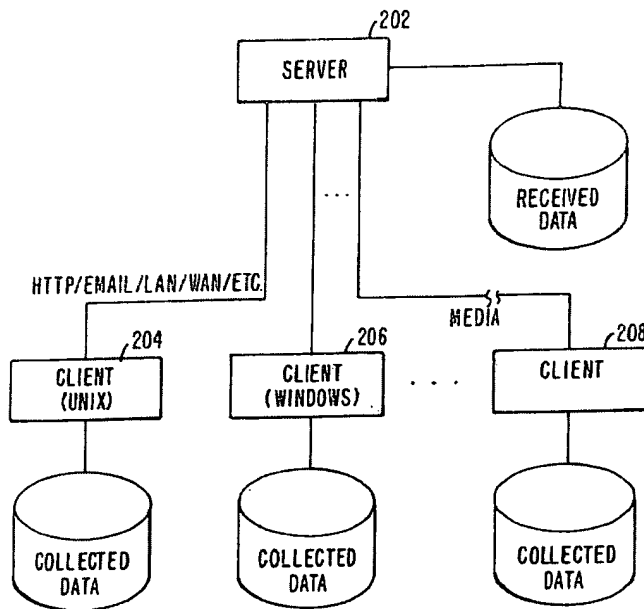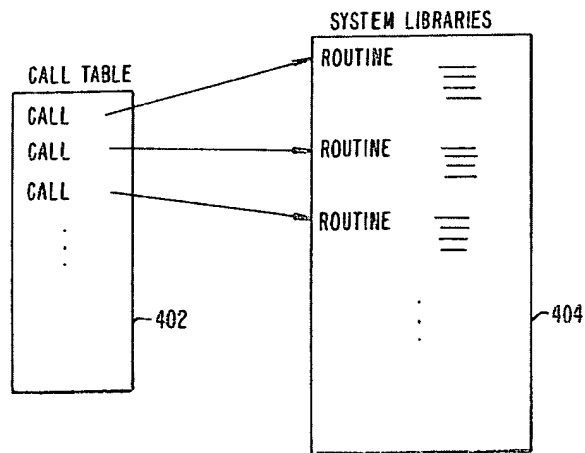Dated: 12/6/06

FIG. 1.

FIG. 2.

PRIOR ART

FIG. 3.

FIG. 5. *PRIOR ART*